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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Attachment to Advisory Action

1. Applicant's response filed **12/22/2010** has been fully considered but it is not persuasive.

Specifically, applicant argues

(A) The rejection of Claims 7-8 and 15 over McCarthy in view of Liu, Hiruma and Hodson is traversed. McCarthy does not disclose the property of heat resistance; the object of the present invention is to provide excellent heat resistance. The examples of the present invention show that the obtained injection molded articles have a deflection temperature under load of 50°C or more, which is indicative of excellent impact strength and heat resistance. The articles of this invention are formed using components (A), (B), and (C); component (C) improves the elastic moduli, which prevents deformation of the molded articles when they are taken out from the mold or during crystallization after molding. Hiruma is a shrink film, and neither Hiruma nor Hodson discloses heat resistance.

(B) Claims 4,5, and 6 as well as Claim 3 have been cancelled, and thus the rejections are moot.

(C) The rejection of Claim 8 over McCarthy in view of Liu, Hiruma, Hodson, Obuchi, and Wypych is traversed on the same grounds as the discussion of McCarthy, Hiruma, and Hodson, above.

2. **With respect to argument (A),** applicant's arguments have been considered but are ***not* persuasive**. With respect to applicant's discussion of the property of heat

resistance at 50°C or more, it is noted that applicant has not, in fact, claimed this property. The features upon which applicant relies (i.e., heat resistance) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, McCarthy teaches biodegradable blends including polylactic acid based polymer and a second polymer including one or more polyesters, where the first and second polymers are present in a ratio of 9:1 to 1:9 (see abstract) which is used because polylactic acid based polymers have ***superior tensile and mechanical properties*** compared to PLA alone. (See col 2 line 10-21) The polylactic acid is at least 50 percent by weight. (See col 2 line 34-36) Blends with more than 20% weight of the aliphatic polyester have ***improvements in elongation toughness***, and biodegradation rate. (See col 4 line 52-67) The second polymer is an aliphatic polyester such as polybutylenesuccinate-adipate copolymer, inter alia, and can contain a copolyester of an aliphatic polyester having up to 50% by weight of an aromatic polyester, such as terephthalate. (See col 2 line 37-45, col 6 line 5-12) This is an aliphatic-aromatic polyester. McCarthy's polyesters from the Bionolle family of polymers, such as 1000, 2000, 3000, 6000, and 7000 series have T_g of -30°C (Bionolle 1001), -35°C(Bionolle 3001), and -4°C (Bionolle 6001). (Hodson). Liu teaches that Bionolle is beneficially blended with PLA to improve the thermal and mechanical properties of the PLA (see abstract) and to provide good processability, physical properties, and resistance to water and solvents. (See p. 225 col 2) The Bionolle is

used from 0 to 50% by weight (see p. 232 Table I) and Liu indicates that there is no melting peak detected until the content of Bionolle reached 20% by weight, suggesting that it should be employed at or above this level. (See p. 231 col 2) Therefore it is clear that McCarthy desires that the one or more polyesters have T_g below 0°C. The blend can also include a compatabilizer which is a polyester. (See col 2 line 46-47) The amount of the compatabilizer is up to 10 percent. (See col 6 line 19-21) McCarthy specifically notes that the compatibility of PLA with some of the polyesters can be improved with the addition of a small amount of compatibilizer, such as Bionolle 3000. (See col 9 line 45-49)

McCarthy teaches that the second polyester polymer portion of the blend can contain, in addition to the aliphatic polyester, a copolyester of an aliphatic polyester having up to 50% by weight of an aromatic polyester, such as terephthalate. (See col 2 line 37-45, col 6 line 5-12) Furthermore, McCarthy specifically exemplifies blends having polylactic acid and two polyesters. (See col 9, line 37-50) Hiruma teaches a polylactic acid-type polymer composition having an aromatic-aliphatic polyester resin component. (See par [0003]) This inclusion ***improves shock resistance*** (see par [0002]) and the aromatic aliphatic polyester of Hiruma is suitably biodegradable even with the aromatic component. (See par [0009]) Hiruma specifically exemplifies Ecoflex, an aromatic aliphatic polyester, (see par [0018]) having ΔH_m of 21.6 J/g and T_g less than 0°C. It would be obvious to one of ordinary skill in the art to use Hiruma's aromatic-aliphatic polyester as the copolyester of an aliphatic polyester having up to 50% by

weight of aromatic polyester of McCarthy in order to improve the shock resistance of the composition as taught by Hiruma.

This is essentially the same combination as that required by applicant, and therefore the same properties are expected. Furthermore, McCarthy specifically describes superior mechanical properties, and improved elongation toughness, which is consistent with excellent impact strength and elastic properties.

With respect to applicant's argument that Hiruma is a shrink film, this is not relevant to the combination of McCarthy with the supporting references. McCarthy teaches blends for film, sheets, and other products by methods such as blown film, extrusion, and ***injection molding methods***. (See col 7 line 44-46) The motivation to combine Hiruma with McCarthy is based on the properties of the polymer itself, and not on the methods for preparation used in Hiruma. However as McCarthy teaches that films, sheets, or injection molded objects can be prepared from the composition, it is clear that the teachings of Hiruma with respect to useful polymers and their properties would be applicable to combination with the teachings of McCarthy, and thus use of Hiuma's polymer for improving shock resistance in McCarthy's composition remains sound.

With respect to argument (B), applicant's arguments have been considered and the rejection of Claims 3-6 has been withdrawn ***in light of applicant's cancellation of these claims.***

With respect to argument (C), attention is directed to the discussion of (A), above.

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